

APPLICANT(S): TAY, Cheng Siew et al.
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AMENDMENTS TO THE SPECIFICATION

In the Specification:

Please replace the paragraphs numbered [0027], [0029], [0040], [0042], [0043], and [0045] with the following rewritten paragraphs, in which changes are marked:

[0027] FIG. 2 shows an exemplary PCB 11 comprising a pad 12 suitable to be soldered to a respective solder-ball of a device. Pad 12, which for the clarity of the explanation is substantially round, merges with a trace 13 along a portion 14 of a perimeter 15 of pad 12. A point 16 is the anticipated location of the crack initiation point on the perimeter of pad 12. A vector 19 beginning at point 16 is the projection onto pad 12 of the anticipated crack propagation direction. A line 18 is a tangent to perimeter 15 at the middle point of portion 14. Line 18 is substantially parallel to vector 19.

[0029] A second instruction, according to some embodiments of the invention, used in the implementation of pad 12 and trace 13 is to merge pad 12 and trace 13 along a portion of perimeter 15 so that a tangent to perimeter 15 at a middle point of the merging portion will be substantially parallel to the projection onto pad 12 of the anticipated crack propagation direction.

[0040] FIG. 6 shows an exemplary PCB 51 comprising a pad 52 suitable to be soldered to a respective solder-ball of a device. Pad 52, which for the clarity of the explanation is substantially round, comprises a microvia 53 according to some embodiments of the invention. A point 56 is the anticipated location of the crack initiation point on a perimeter 55 of pad 52. A vector 58 beginning at point 56 is the projection onto pad 52 of the anticipated crack propagation direction. The center 54 of microvia 53 is located on vector 58 and is farther than the center 57 of pad 52 from point 56. For the clarity of the drawing, a dashed curve 59 is shown, which is an equidistance curve from point 56 containing the center 57 of pad 52.

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[0042] A second instruction according to some embodiments of the invention, used in the implementation of pad 52 and microvia 53 is to locate center 54 of microvia 53 on vector 58.

[0043] FIG. 7 shows an exemplary PCB 61 comprising a pad 62 suitable to be soldered to a respective solder-ball of a device. Pad 62, which for the clarity of the explanation is substantially round, comprises a microvia 63 according to some embodiments of the invention. A point 66 is the anticipated location of the crack initiation point on a perimeter 65 of pad 62. A vector 60 initiated at point 66 is the projection onto pad 62 of the anticipated crack propagation direction. The center 64 of microvia 63 is located on vector 60 and is farther than the center 67 of pad 62 from point 66. In addition, at least one point of perimeter 68 of microvia 63 is located on perimeter 65 of pad 62. For the clarity of the drawing, a dashed curve 69 is shown, which is an equidistance curve from point 66 containing the center 67 of pad 62.

[0045] A second instruction according to some embodiments of the invention, used in the implementation of pad 62 and microvia 63 is to locate center 64 of microvia 63 on vector 60.